

ABSTRACT OF THE DISCLOSURE

A novel modification of a Savonius rotor used as a wind turbine provides an exhaust channel in each vane. The vane of the modified Savonius rotor is formed into an “S” shape. The air that enters a given end of the vane exits that end through the new
5 exhaust channel into the freestream. A plurality of modified Savonius rotors are stacked one on top of the other for self-starting and greater power output. The outer surfaces of the entire assembly may be coated with photo voltaic cell material for additional energy production. In one embodiment of the invention, a cone shaped solar collector is placed on top of the entire modified Savonius rotor assembly.